IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Janssen et al.   Confirmation No.: 6490

U.S. Patent Application No.: 10/087,044   Group Art Unit: 2153

Filed: February 28, 2002   Examiner: Krisna Lim

For: Access-Control Method for a Multi-User Computer System

PRE-APPEAL BRIEF REQUEST FOR REVIEW AND ARGUMENTS IN SUPPORT THEREOF

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reasons stated below.

ARGUMENT IN SUPPORT OF CLEAR ERROR BY THE EXAMINER

Claims 1-19 are currently pending in the present application and stand rejected under 35 U.S.C. §103(a) over U.S. Patent no. 6,757,679 (Fritz). This rejection is clearly erroneous and should be withdrawn for the reasons given below. The Applicant respectfully submits that a *prima facie* case of obviousness has not been established because not all of the claim limitations are taught or suggested by Fritz and there is no motivation in Fritz to make the numerous modifications of the system of Fritz that would be required to arrive at the claimed invention.

The present invention provides a method of controlling the creation of user sessions in a multi-user computer system that takes into account different levels of resources and/or requests for user sessions, while allowing efficient use of the available resources. The method allows efficient allocation of system resources by maintaining the maximum number of log-on requests as a variable which can be adjusted. This allows the system to be adjusted in order to take into account the current availability of computer resources for creating user sessions. Fritz does not

provide any teaching as to how to address the problem addressed by the present invention, namely, to allow a limited set of computer resources to efficiently host multiple user sessions on a multi-user computer system by adjusting the resources allocated to creation of user sessions.

Fritz does not disclose any of the claimed features of: (1) a method of controlling the creation of a user session, (2) the processing of a log-on request by a user at a terminal, (3) that the creation of the user session is halted when more than a maximum number of log-on requests are being processed, and (4) that the maximum number of log-on requests is maintained as a variable which can be adjusted in the multi-user computer system.

The Examiner admits in paragraph 4 of the Final Rejection that Fritz does not mention that the requestor may be making a log-on request. Thus, since Fritz does not even contemplate the making of log-on requests, a skilled person would certainly not derive from Fritz the concept of maintaining the maximum number of log-on requests as a variable that can be adjusted.

Instead, Fritz teaches a hardware implementation of a queue management system on a chip (See col. 2, lines 27-30 of Fritz). In the hardware implementation of Fritz, the queues consist of m queue-base units representing the m tops of queues (See col. 2, lines 44-45 of Fritz). Each queue-base unit has access to the add- and remove-input lines of the device implementing the queue management system (See col. 2, lines 61-63). The amount of hardware needed for m queues grows linearly with m (See col. 4, lines 13-15 of Fritz). Thus, m is not maintained as a variable which can be adjusted, but rather is a constant determined by the amount of hardware resources included on the chip of Fritz. Thus, the system of Fritz does not maintain the maximum number of requests as a variable that can be adjusted.

Accordingly, since Fritz says nothing about log-on requests Fritz immediately lacks two features required to make out a case of *prima facie* obviousness against claim 1 of the present application, namely: (1) processing a log-on request entered by a user at a terminal, and (2) maintaining the maximum number of log-on requests as a variable that can be adjusted should there be a change in user demand.

The Examiner relies on a combination of Fritz and common general knowledge to support the present rejection. However, the Examiner has not provided any evidence in support of the fact that it is common general knowledge to maintain a maximum number of log-on requests as a variable in any system. In addition, the Examiner has provided no motivation in Fritz, as required for a case of *prima facie* obviousness, to modify Fritz to: (1) address log-on

requests, (2) maintain a maximum number of log-on requests, or (3) maintain the maximum number of log-on requests as a variable. Thus, the Examiner has not met his burden of showing (1) that the elements of the claims of the present application even exist in the prior art, or (2) that there is a suggestion to modify Fritz to apply its teachings to log-on requests, to maintain a maximum number of log-on requests or to implement a maximum number of requests as a variable.

> The Examiner also takes the position in paragraph 3 of the Office Action that,
>
> "Fritz discloses the feature of maintaining a queue management in the [sic] multi-user system (e.g. workstations, LAN, Internet, etc.) as <u>a variable that can be</u> **<u>dynamically</u> <u>adjusted</u>** (e.g. a next-element value of a queue-base pointer that can be set to a value and the next element pointed with added priority than be set or adjusted, see col. 3, lines 4-42)." (emphasis original)

First, the words "workstations, LAN, Internet or a network" do not appear in the text of Fritz. Instead, Fritz teaches, "The present invention is further directed to a computer comprising the electronic queue management system described above, as well as to an electronic circuit comprising said electronic queue management system." See col. 1, lines 59-62 of Fritz. Since Fritz does not even contemplate use of its system in a multi-user environment, there is no need for a system to maintain the number of log-on requests in the environments contemplated by Fritz and thus the skilled person would have no reason to add a system of maintaining the number of log-on requests to the apparatus of Fritz as the Examiner suggests. In fact, there is no indication in Fritz that there will ever be multiple log-on on requests.

The Examiner seems to take the position that since workstations, LAN, Internet or a network are well known in the art it would be obvious to use the hardware of Fritz in such a system. This is legally incorrect. The mere fact that something is well known in the art does not mandate that it would be obvious to use any hardware in such a system. The law requires that there be some teaching, suggestion or motivation to combine the hardware of Fritz with workstations, LAN, Internet or a network and the Examiner has not demonstrated that there is such a teaching, suggestion or motivation, particularly since the only reference relied on, Fritz, does not contemplate use in a multi-user environment where multiple log-on requests could be encountered.

Also, the Examiner relies on the discussion of the queue at col. 3, lines 4-42 of Fritz as providing a teaching of maintaining the number of log-on requests as a variable that can be adjusted. However, this portion of Fritz also does not mention log-on requests. Also, there is no reference to a "maximum" in this section of Fritz and thus a skilled person would not get the idea to set a maximum number of log-on requests as a variable from this disclosure.

Most importantly, the next-element pointer which is referenced by the Examiner as the so-called indication of the maximum number of requests that is maintained as a variable does not determine the maximum number of requests and is not a variable. The next-element pointer does not define a maximum number of requests (See col. 3, line 14-17 of Fritz), but rather only provides an indication of the position or priority of a particular request in a queue. The next-element pointer is also not a variable, but rather is assigned to a request based the priority of that request in the queue relative to other requests (See col. 3, lines 14-23 of Fritz). Finally, the next-element pointer cannot be used to control the number of requests to be handled by the system of Fritz at a given time, which is the function of the variable maximum number of log-on requests of the claims of the present application. Rather, in Fritz, as discussed below, the hardware determines the maximum number of requests and the maximum number of requests that can be handled by the hardware system of Fritz is a constant not a variable.

First, Fritz says that, "In most cases, the maximum number of outstanding requests per requestor o at a given time is limited such that the total number of requests at a given time is n=oxp." See col. 2, lines 24-26 of Fritz. Fritz then says that, "In said hardware implementation the queues consist of … n so-called queue elements representing the n requests. Each request…must be associated with a queue element." See col. 2, lines 44-48 of Fritz. Fritz also states that, "The advantage of this implementation is that the amount of hardware needed for n elements grows linearly with n…" See col. 4, lines 12-13 of Fritz. The number of requests "n" of Fritz is determined by the hardware queue elements and thus the number of requests "n" cannot be dynamically adjusted.

Since Fritz is a hardware implementation, none of the numbers n (the maximum number of possible requests), p (the number of requesters), and o (the maximum number of outstanding requests per requester at a given time) are variables. In fact, each of these numbers are constants determined by the hardware elements. The Examiner has nowhere shown that Fritz contemplates that any of n, p or o would be variable in a given hardware system.

Finally, the Examiner also takes the position in paragraph 14 of the Final Rejection that Fritz discloses the feature of halting the activity when there are more than a maximum number of requests. The Examiner relies on col. 1, lines 56-58 and col. 2, lines 24-26 of Fritz in support of this conclusion. However, these passages of Fritz do not mention halting any activity and therefore do not support the Examiner's position.

Claims 10 and 14 define a multi-user computer system and computer program for controlling the creation of a user session in a multi-user computer system in terms of features corresponding to those set forth in method claim 1. Consequently, the same arguments and reasoning apply to claims 10 and 14 as are given for claim 1 above. Dependent claims 2-9, 11-13 and 15-18 are unobvious for at least the same reasons as given above for claims 1, 10 and 14.
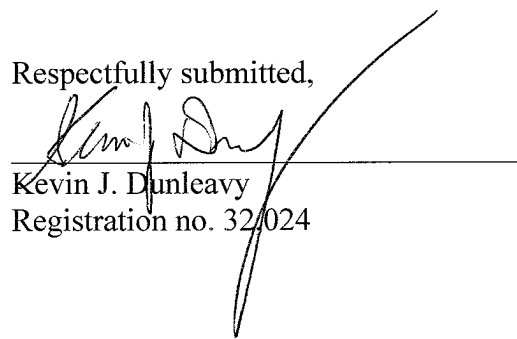
Claim 19 contains the additional requirement that, "...said system including an adjustment mechanism for dynamically adjusting the maximum number of user sessions which can be processed simultaneously." Thus, claim 19 is clearly patentable over Fritz for the reasons given above and because Fritz does not teach or suggest the provision of an adjustment mechanism for adjusting the maximum number of user sessions which can be processed simultaneously. The underlined words are important since Fritz does not disclose (1) an adjustment mechanism, (2) control of the number of user sessions (Fritz does not even mention user sessions), or (3) adjusting the maximum number of user sessions.

Second, Fritz does not contemplate dynamic adjustment of the maximum number of user sessions since in the hardware implementation of Fritz, the numbers n (the maximum number of possible requests), p (the number of requesters), and o (the maximum number of outstanding requests per requester at a given time) are all constants determined by the amount of hardware used to build the system.

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Respectfully submitted,

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